Confidence by Control

SIDE-POWER Thruster Systems

Installation & User Manual
Radio Remote RCS-10E

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Model range

The radio remote control can control a single bow thruster or a bow and stern thruster combined. The receiver can receive the signals of up to four transmitters.

Remote control kit (RCS-10E) consists of:
- Receiver: Part no. RCRS-1E
- Transmitter (incl. battery): Part no. RCT-10E
- Holding bracket for transmitter unit: Part no. RC-HOLDER

Additional transmitters can be ordered separatly: Part no. RCT-10E
Antenna is available as spare part no. RC-ANT

The transmitter and the receiver have the same factory preset code so no programming is necessary. The battery is already inserted in the transmitter.

When additional transmitters are to be used, the receiver must be programmed again for all transmitters (please see programming section on page 7).

CE

We **Sleipner Motor AS** declare that this device complies with health and safety requirements according to the Directives
EN301 489-3 V1.4.1:2002
EN301 489-1 V1.4.1:2008
IEC 60533:1999
EN300 220-1 V2.3.1:2010
EN300 220-2 V2.3.1:2010

Technical specifications

	Transmitter	Receiver
Model	RCT-10E	RCRS-1E
Power feed	1 x 3V battery (type: CR2032)	From thruster
Frequency (MHz)	433,2	433,2
Operation temp.	-10°C / +55°C	-15°C / +55°C
HxWxD (mm)	95x48x25	110x35x35
Weight (g)	60	170
Voltage:		8-30V

Operating range: 15m under normal operating conditions

Important precautions

- **You must always install at least one original Side-Power panel.**
- With the boat on land, only run the thruster for a fraction of a second, as without resistance it will accelerate very fast to a damaging rpm.
- This manual is intended to support educated / experienced staff and is therefore not sufficient in all details for the correct installation.
- When installed in boats approved or classified according to international or special national rules, the installer is responsible for following the demands in accordance with these regulations / classification rules. The instructions in this guide can not be guaranteed to comply with all different regulations / classification rules.
- The transmitter and the receiver have the same factory preset code so no programming is necessary. When additional transmitters are to be used, the receiver must be programmed again for all transmitters (please see programming section on page 7).
- If a Side-Power automatic main switch is fitted, the “OFF” button on your transmitter will shut off the main switch providing no other control panels are “ON”.

Receiver installation

Prior to installation, it is important that the responsible installer reads this guide to ensure necessary acquaintance with this product.

Caution!

- Install the receiver minimum 1 meter (3ft) from high power cables and NMEA cables or other sources of electrical interference, i.e. navigation instruments, radio communication devices, electro motors and generators.
- Install the receiver outside of shielded areas for radio signals, i.e. boxes made of steel or other material with shielding properties.
- Install the receiver in a dry environment (The receiver assembly is not waterproof.)
- When additional transmitters are to be used, the receiver must be programmed again for all transmitters (please see programming section on page 7).
- The receiver is powered by the S-link cable.
- Mount the receiver using the four screw holes (please see picture on page 6).
  If the receiver is mounted against a wall, use spacers between the receiver and the wall to avoid moisture in the receiver.

Optimised installation (Fig. 1 - 3)

- The receiver antenna must be placed in a vertical position minimum 1 meter (3ft) above sea level.
- The receiver has antenna with SMA connector. If there is a problem with signal transferring, try to move the unit to a more optimised position or buy the antenna extension cable (RC-EXT) to relocate the antenna.

    - Above sea level
    - Away from sources of electrical interference.

Note! Faulty installation will render all warranty given by Sleipner Motor AS void.

FIG. 1

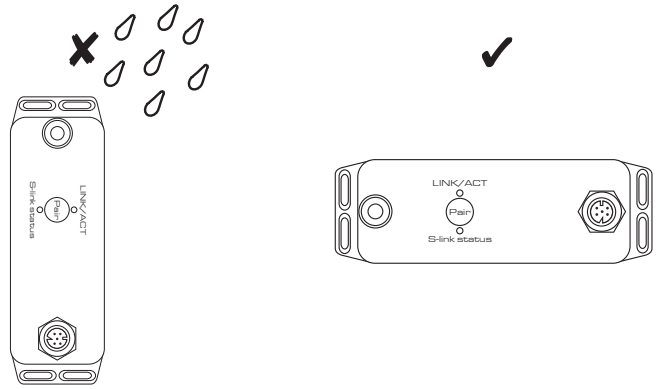


FIG. 2

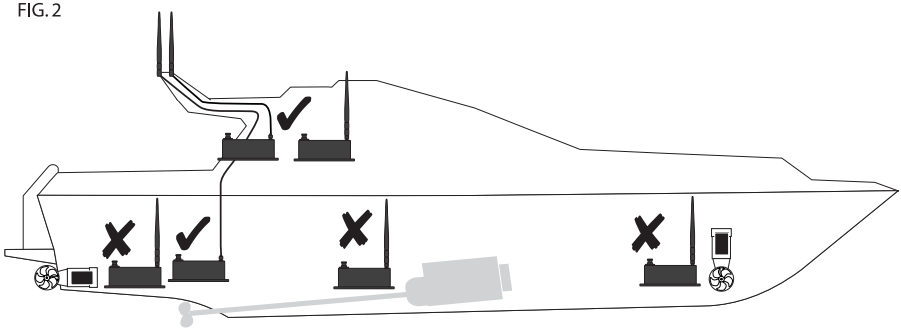
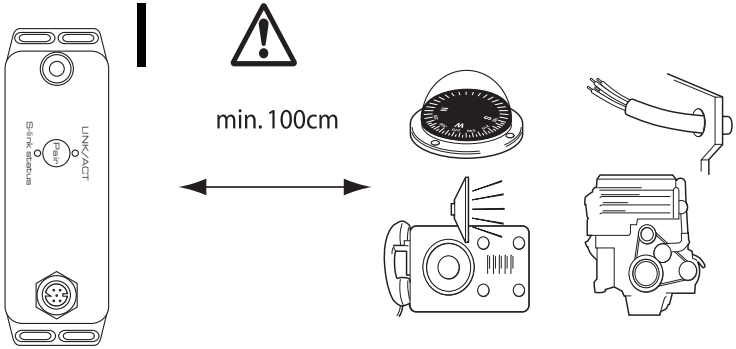
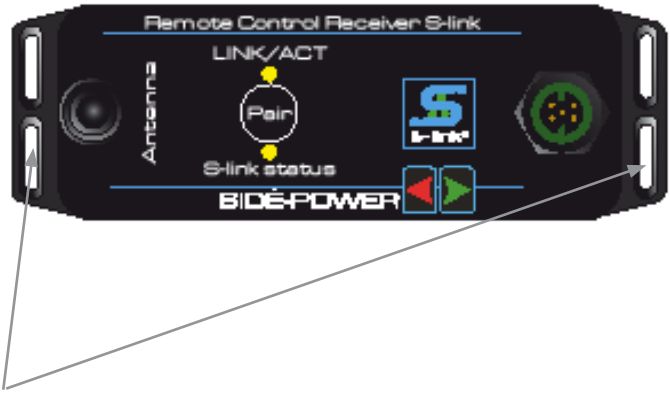


FIG. 3



Receiver installation



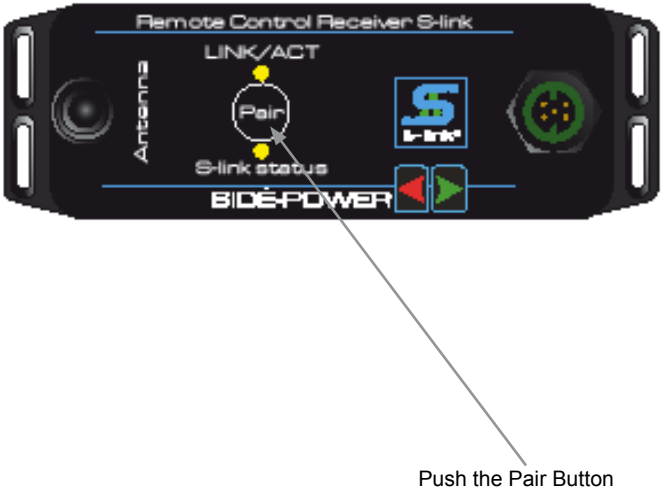
Mount the receiver by using the 4 screwholes.

Receiver LEDs

S-link status LED	Status	User action
Continous green	OK, S-Link Bus active	
Blinking green	No activity on S-link Bus	If remote control is active and thrusters is not responding, check S-link cable connection

LINK/ACT LED	Status	User action
OFF	Remote off	
Flash	Receiving message from RCT-10 (transmitter)	
Blinking	PAIR button is pressed, ready for pairing	Pairing procedure decribed on page 7

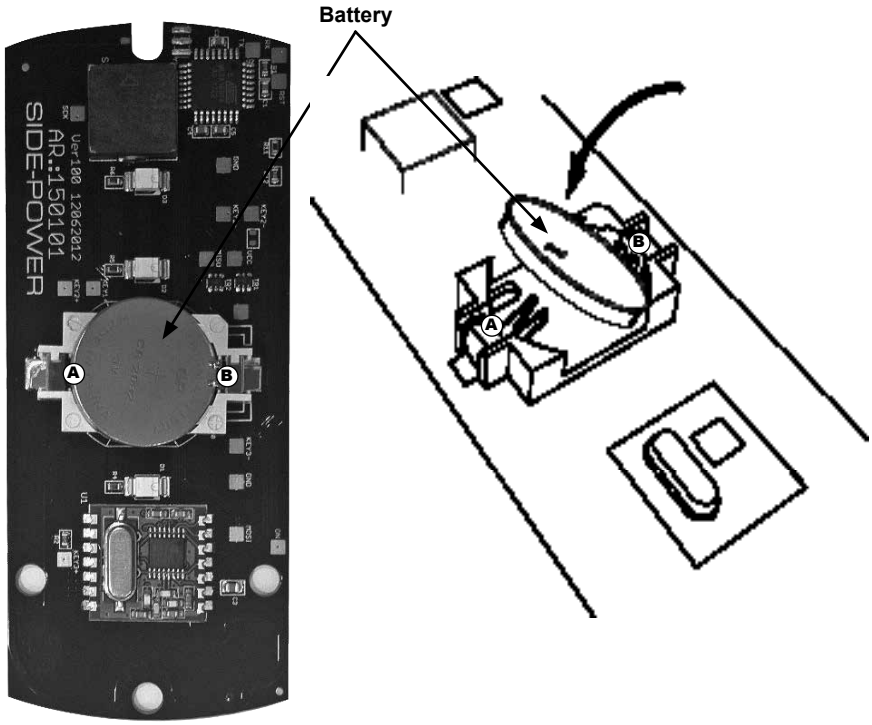
Programming additional receivers



The original transmitter and receiver have the same factory preset code so that no programming is necessary. When additional transmitters are to be used, the receiver must be programmed again for all transmitters.

1. Deactivate the receiver and all transmitters (press “OFF” on all transmitters). Turn off the main power switch for the thruster(s).
2. Turn on the power to the receiver.
3. Push the Pair Button on the receiver (as shown above). The LINK/ACT LED over the button will start to blink.
4. The receiver and transmitter are programmed by pressing both “ON” buttons on the transmitter. Within 5 seconds the LED will change from blinking to continous light when the programming signal is received. The transmitter is then ready to use.
5. Additional transmitters must be programmed according to step 3-4 when the receiver is in “Program mode”. You can pair up to 4 transmitters.
6. To clear all transmitters, hold Pair Button until LED blinks slow, continue to hold button pressed until LED blinks quick indictaing that a reset process is started. When LED is turned off, the reset process is completed, and the Pair button can be released. The LED will come on when the receiver has completed the reset process and is ready to be paired (Step 3-4)

Replacing the battery



WARNING:

Before working on the transmitter, deactivate the transmitter and the receiver (push "OFF" on the transmitter(s)) and turn off the power to the receiver as well as the thruster mainswitch.

1. Open the transmitter.

2. Take out the battery by inserting a screwdriver or similar between battery and holder at point A, and gently flip the battery out, taking care not damaging the battery grips at point B

3. Insert the new battery (Type CR2032, 3V - Brand name recommended). Be sure to insert the battery with the positive pole up diagonally into the battery holder, confirming that the edge of the battery is under the battery grips (B). Press the battery down until secured at point A.

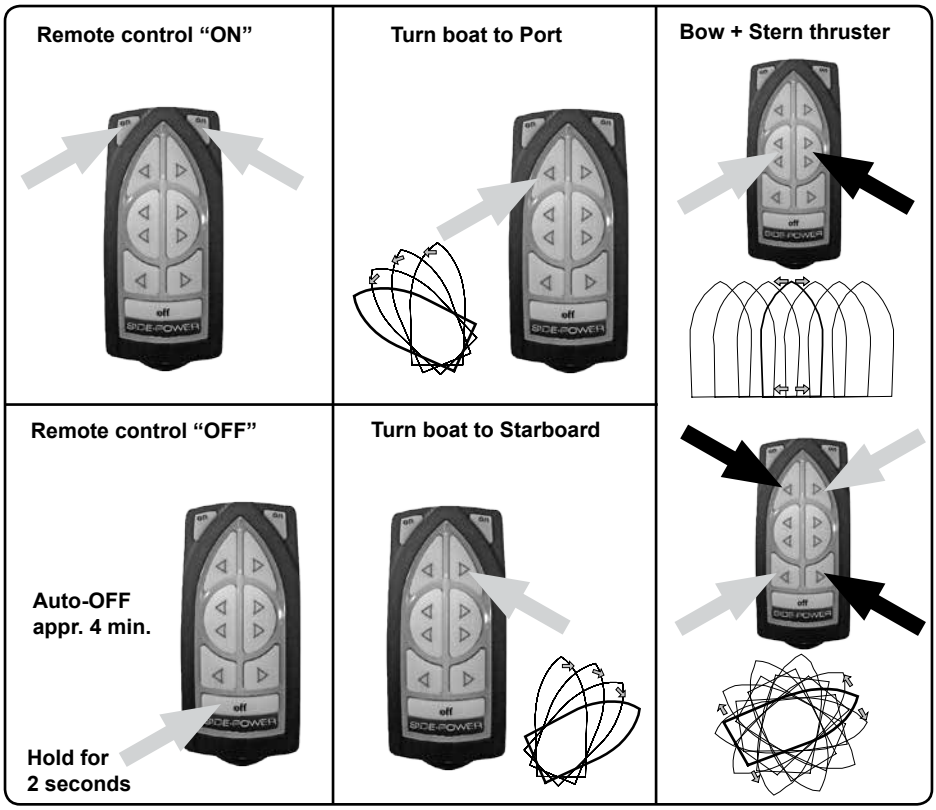
4. Close the transmitter. Put the cover back in place, ensure that the rubber seal between remote upper and lower part is located correctly. Place the 3 screws (remember sealing washer) in their recessed holes and tighten.

Important user precautions

- Ensure that you know the location of the main battery switch that disonnects the thruster from all power sources (batteries) so that the thruster can be turned off in case of a malfunction.
- If a Side-Power automatic main switch is fitted, the “OFF” button on your transmitter will shut off the main switch providing no other control panels are “ON”.
- **How to activate the system:**
  Turn on the main power source for the thruster system. Turn on the power to the receiver. The thruster system is then activated by pushing the two “ON” buttons on the transmitter (see page 10). To turn of the radio remote control press the “OFF” button on the transmitter for 2 sec. The LED below the Pair Button on the receiver will blink when a command signal is received.
- **Alarms**:
  If transmitter/receiver is out of range, the transmitter will give a alarm sound.
- The transmitter will automatically turn off after approx. 4 minutes of inactivity for safety reasons

  When using a single transmitter
  The system turns off automatically approx. 4 minutes after the last usage.

  When using more than one transmitter or additional ‘radio-link’ control panels
  The system turns off automatically approx. 4 minutes after the last usage of the control unit that initially activated the system even if other control units have been operated in the meantime. The system is off even if these other control units still show the blinking LED on the transmitter. To use these transmitters, the system must be activated again by pushing the two “ON” buttons.
- Remember to turn off the radio remote control by pushing the “OFF” button on the transmitter for 2 seconds and to turn off the power switch for the receiver when you have finished your maneuvering.
- The maximum continues usage time of the electrical thruster is approx. 3 minutes. The electro motor has a built in thermal cut-off switch that will shut it off when overheating and re-engage it when it has cooled down some. This should be considered when planning your manouvering.
- Never use a thruster close to somebody in the water, as the thruster will draw objects close by into the tunnel and contact with the rotating propellers will cause serious injuries.
- Never run a thruster for more that one second when the boat is not in the water, as this can damage the electromotor seriously.
- If the thruster stops giving thrust while the electromotor is running, chances are that there is a problem in the drive-system. You must then immediately stop trying to run it, and turn it off, as running the electromotor for more than a few seconds without resistance from the propeller, can cause serious damage to the electromotor.
- When leaving the boat always turn off the main power switch for the thruster and turn off the power to the receiver.
- We advice to always keep the main engine(s) running while using a thruster. This will keep the batteries in a good charge condition. This will also give better performance to the thruster, as a higher voltage at the thruster results in a higher torque (power) in the electromotor.
- Make sure that only one control is used at the same time, if two panels are operated in opposite directions at the same time the thruster will not run at all. If they are operated in the same direction the thruster will run in this direction.



How to use a bow thruster

1. Turn the main power switch for the bow thruster on. Turn on the power to the receiver.
2. Turn on the transmitter by pushing the transmitter’s two “ON” buttons. The remote system is now activated and then turns off automatically appr. 4 min. after the last usage (see page 9).
3. Please take some time to exercise thruster usage in open water to avoid damages to your boat.
4. Turn the bow in the desired directiony by pushing the red button for port movement or the green button for starboard movement.

How to use a bow & stern thruster combined

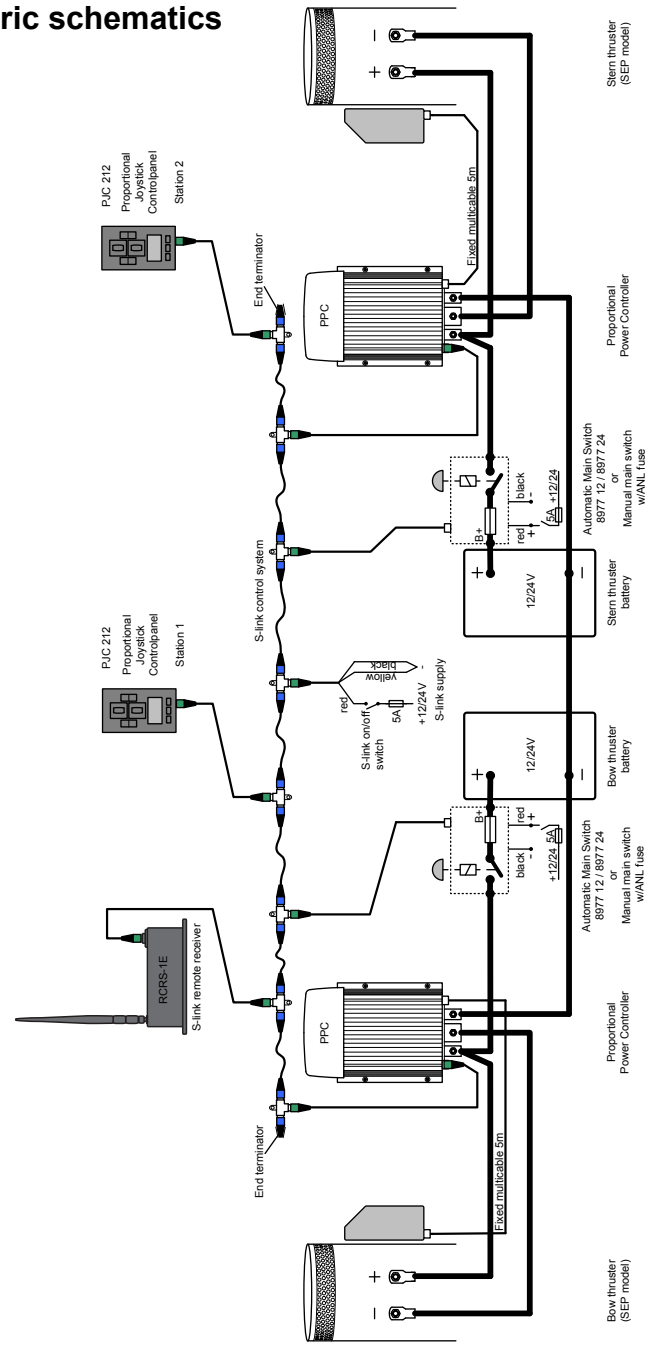
The combination of a bow and stern thruster offers total manouverability to the boat and the opportunity to move the bow and the stern separately of each other. The remote middle buttons gives you the opportunity to operate both thrusters in the same direction with one keypress, making sidewards movement easier.

Remote Control Deactivation

Push the transmitter’s “OFF” button for 2 seconds (the remote control deactivates automatically after approx. 4 minutes after the last usage). Turn off the power switch for the receiver.

- **If in doubt, try in open water first!**

Electric schematics



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